

OREGON ELECTRIC RAILWAY WESTSIDE CORRIDOR,
HILLSBORO EXTENSION
(Burlington Northern Railroad Westside Corridor,
Hillsboro Extension)
between 185th Avenue and Hillsboro
Hillsboro
Washington County
Oregon

HAER No. OR-59-A

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PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

HISTORIC AMERICAN ENGINEERING RECORD
National Park Service
Western Region
Department of the Interior
San Francisco, California 94107

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(Burlington Northern Westside Corridor, Hillsboro Extension)

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Location: Between 185th Avenue and Hillsboro, Washington County, Oregon
U. S. G. S. 7.5 minute series Beaverton and Hillsboro, Oregon
quadrangles
Universal Transverse Mercator Coordinates:
Eastern terminus: N5040100E510500
Western terminus: N5041000E500800

Date of Construction: 1908

Present Owner: Burlington Northern Railroad
777 Main Street
Fort Worth, Texas 76102

Present Occupant: Burlington Northern Railroad

Present Use: Abandoned rail freight transportation line

Significance: The Oregon Electric Railway was important to the initial growth of Beaverton as a suburb of Portland and as a passenger and freight transportation link between Portland and the central Tualatin Valley centering around its county seat, Hillsboro.

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The Lewis and Clark Centennial Exposition and World Fair in 1905 gave Portland a sharp spur into the Twentieth Century. With an expanding metropolitan population and a downtown building boom, Portlanders joined the national interest in building interurban electric rail lines. Boasting "no soot and no cinders," in contrast to the regular coal-fired steam trains, electric interurban rail lines were built in many parts of the United States around the beginning of the Twentieth Century to serve the transportation needs of a rapidly growing population living in rapidly expanding metropolitan areas. During this period, the population of the United States is estimated to have been increasing by a million and a third people per year--largely from European immigration (Hilton and Due 1960: 7). Most of these new Americans settled in cities which were swelling against the constraints of the old transportation network. This network, based on pedestrian and horse-drawn locomotion, limited the horizontal spread of cities to the distance such transportation could carry people to and from their work each day. Steam rail lines were increasingly efficient for long-distance travel, but were less useful for local transportation, especially passenger service. The bulging cities were limited also by the technology of building vertically. While the earliest skyscrapers with elevators were coming into use during the period, most buildings still were only as tall as it was practicable for people to walk up--especially buildings offering affordable rental housing to the growing population. The electric interurbans offered a viable means by which people could live on the outskirts of the cities, yet commute to and from their daily work in the urban core. This "Dinner-Pail Brigade" was the ticket-buying mainstay for the interurban lines. Not only did the interurbans solve (at least temporarily) the problem of how to move a growing population from one place to another; it also extended the

long-standing American dream of owning a home and living in a rural area or small town. The suburbs in which most of us live today are the descendants of country real estate developments begun as a result of the electric interurban railways across the United States. The interurbans focused on passenger service, but also carried mail and light freight, further strengthening the connections between the hinterland and the urban core.

The earliest known American electric interurban line (as distinguished from electric streetcar or trolley lines) began operation in Ohio late in 1889. Interurban electrics are distinguishable both from city streetcars and from railroads by four characteristics:

- o electric power;
- o emphasis on passenger service;
- o use of equipment heavier and faster than streetcars; and
- o operation on streets in the city, but alongside highways or on private rights-of-way in the country (Hilton and Due 1960: 9).

One of the first major interurbans in the nation (The East Side Railway) was opened from Portland to Oregon City, Oregon in 1893. Eventually Oregon boasted of 432 miles of interurban trackage--second only to California (1295) miles) among states west of the Rockies, but far below record-holding Ohio which led the nation with 2,798 miles of interurban track (Hilton and Due 1960). Nationwide, electric interurbans developed during a general period of agricultural prosperity between about 1897 and World War I. A burst of building activity from 1901 to 1904 ended as a result of the Panic of 1903 and a second boom from 1905 to 1908 ended following the Panic of 1907. By 1912 the nation's electric interurban network was basically in

place. A decline set in slowly with the end of World War I in 1918 and the first glimmerings of the automobile/paved highway future.

Never very profitable and perhaps having more in common with public utilities than with other types of private enterprise, the electric interurban lines could not compete in an era of rapidly expanding highway networks, cheap gasoline and ever more readily available automobiles. The hard economic times of the Great Depression in the 1930's simply put the final nail in the electric interurban's coffin. By 1960 virtually all trace of the nation's electric interurban railway network was gone. In that year, authors George Hilton and John Due noted that "fully 85 per cent of the peak interurban mileage is evidenced only by abandoned rights-of-way, decaying wayside structures, and terminals long since diverted to other uses" (1960: 3).

The Oregon Electric Railway is an excellent example of a line built during the late boom years of electric interurban construction which exists now only in fragments, historical records and rapidly diminishing memories. The Oregon Electric was financed mainly by Eastern capital raised by W. S. Barstow and Company serving the interests of railroad empire builder James J. Hill. The corporation began with \$2.5 million in 1906 under direction of Portlanders Thomas Scott Brooke, Henry L. Corbett and Robert W. Lewis. The Oregon Electric opened its main line from Portland to Salem late in 1907. By 1908 the corporation's capital had increased to \$10 million (Gaston 1911: 304). A branch opened from the main North-South line west to Forest Grove about a year later, the first car reaching the Washington County seat of Hillsboro on September 15, 1908. This new line allowed a commuter to travel from Hillsboro to Portland in just over an hour--a vast improvement over road travel at this period and not much more than a

rush-hour trip today. By 1910 the Oregon Electric boasted 69 miles of track "built to railroad standards with private right-of-way throughout and provided with the best high-speed interurban equipment of the period" (Hilton and Due 1960: 396). Operation of the Oregon Electric Railway was turned over to the Spokane, Portland and Seattle Railway in 1910. The S. P. & S. was a regional railroad jointly owned by the Northern Pacific and Great Northern, both parts of James J. Hill's railroad empire. The Oregon Electric was a part of Hill's battle plan to compete with Harriman's Southern Pacific and Union Pacific empires. Hill expanded the Oregon Electric south to Eugene and bought United Railways which ran through the northern part of Washington County. Harriman retaliated by running electric interurban cars on his Southern Pacific tracks through the Willamette and Tualatin Valleys, competing head to head with the Oregon Electric. The competition was wearing on both railroads, but provided a growing commuter population with good service.

The Pullman Green cars of the Oregon Electric were familiar sights along the rights of way through the Willamette and Tualatin Valleys for more than a quarter century. By 1932, however, the Forest Grove line was down to two runs per day and passenger service on the line ended entirely in 1933. In 1945 the line was dieselized and dedicated to hauling S. P. & S. freight. Today parts of the right of way of the old Oregon Electric are still used by the Burlington Northern Railroad, a descendant of James Hill's railroad empire.

The Forest Grove branch of the Oregon Electric ran for 21 miles through the relatively flat Tualatin Valley, from its connection with the main Oregon Electric Portland-Salem-Eugene line at Garden Home, westward through Beaverton and Hillsboro to its terminus in Forest Grove.

About three and a half miles of this right of way between Watson Avenue in Beaverton west to 185th Avenue is now part of the Tri-Met Westside Light Rail Corridor. Another six miles from 185th Avenue west to Hillsboro will soon become part of Tri-Met's Hillsboro Extension of the Westside Light Rail Corridor. Together, these light rail segments will bring electric interurban passenger rail service back to Washington County after a hiatus of more than half a century. The line has long been de-electrified and no trace remains of catenaries, junction boxes or powerhouses along the route. The roadbed along part of the route has been maintained commensurate with its continuing use as a single track freight route by the Burlington Northern Railroad. The only features of particular interest along the route are three bridges carrying the line across small creeks which are fairly deeply incised into the dissected Pleistocene alluvial floor of the Tualatin Valley. These creeks all flow generally from northeast to southwest, tributaries of Rock Creek which empties into the Tualatin River about three miles south of the Oregon Electric line.

The bridge over 216th Avenue and Rock Creek (Photos # 05-11) is composed of two distinct segments. Springing from a poured concrete wing abutment on the east shoulder of 216th Avenue, a steel beam bridge spans about 30 feet to a rectangular, poured concrete pier which tapers toward the top on the west shoulder of the road. The span is composed of four longitudinal steel I-beams supporting an open floor of wooden ties surmounted by a longitudinal wooden side stringer on each side. A three-strand steel cable guard rail, mounted on angle iron uprights runs along each side of the bridge, though this guard rail is probably a relatively recent addition or replacement.

The second part of the bridge springs from the poured concrete pier on the west shoulder of 216th Avenue (shared with the steel beam bridge described above), crossing Rock Creek on three steel deck plate girder spans. The total length of the bridge is approximately 250 feet. The three steel deck plate girders have Warren type lateral bracing and rest on two intermediate rectangular, poured concrete piers which taper toward the top. The west end of the bridge rests on a poured concrete straight abutment. The plate girders support an open floor of wooden ties surmounted by a longitudinal wooden stringer on each side. Four longitudinal sidewalk planks run along both sides of the bridge, outside of the longitudinal stringers, but there are no refuges. A two-strand steel cable guard rail mounted on angle iron uprights runs along each side of the bridge, though it is probably a relatively recent addition or replacement. The channel of Rock Creek flows between the west abutment and the westernmost intermediate support pier. The whole bridge is of single track width.

A small bridge over Orenco Creek (also called Hawthorn Hollow) is a timber trestle 50 feet in length made up of five timber-capped, four-pile bents supporting a timber beam bridge (Photo # 12). The bents have bent or sway bracing. The bridge has an open tie floor with separated stringers. The abutments are bank bents with straight, plank dump boards. There are no refuges on this short trestle, and no railing. A wooden board post and rail fence blocks right of way access to the trestle on its west end, but this, of course, is a recent alteration.

A larger timber trestle crosses Dawson Creek (Photo # 14). It is approximately 200 feet in length and is made up of sixteen timber-capped, six-pile bents supporting a timber beam bridge. The bents have bent or sway bracing and two sets of diagonal bracing connect the outside piles

of each bent with its neighbors. The bridge floor is open and unballasted with separated stringers and steel plates under the ties. The abutments are bank bents with straight plank dump boards. There is a single refuge on the south side of the bridge about half way across, with a wooden railing, but no fire barrel. The rest of the bridge has no railing. Recent metal post and rail fences block right of way access to the bridge from both the east and west ends.

Historical photograph collections were examined at the Oregon Historical Society and the Washington County Historical Society in Portland. At OHS, while many views of the Oregon Electric lines were found both in the indexed and unindexed collections, few show the railway in the current project area. OHS Negative # 46118 is a view of the partially completed trestle number 9, a typical timber pile bent trestle bearing a timber beam bridge over Baseline Road just east of Hillsboro, Oregon. The view is from Baseline Road facing west and the photo is dated 7/22/08. This trestle is long-since destroyed. OHS negative # 23064 shows the Oregon Electric roadbed ready to receive track somewhere near Hillsboro also dated 7/22/08. The location is at an unidentified dirt road grade crossing. The ties are in place, but no rails or catenaries are visible. Several OHS photographs show the first Oregon Electric car to reach downtown Hillsboro on 9/30/08. These are OHS negatives # 13312, 13313, and 38974. OHS Photo Album #277, an undated photograph album compiled by the Spokane, Portland & Seattle Railway after their formal acquisition of the Oregon Electric in 1910, contains several general views in the project area, though none shows a close view of track, bridges or other railroad features. These photographs, numbered in the album as "photo #s 215-226 and 228-237" and identified respectively as "Gifford #s 3474, 3523, 3475, 3472, 3549, 3459, 3550, 3507, 3471, 3464, 3473,

3546, 3480, 3547, 3482, 3548, 3478, 3494, 3491, 3513, 3468, and 3492" clearly show the rural environment through which the Oregon Electric passed in Washington County. The photograph collection at the Washington County Museum contains no views of the Oregon Electric in the project area other than copies of photographs described above from the OHS collection, though views of other portions of the Oregon Electric line are present. With construction of Tri-Met's new Light Rail Corridor along the old Oregon Electric right of way, history seems to be coming full circle. Writing in 1960, authors George Hilton and John Due stated that "the building of the interurbans---must be looked upon from the vantage point of history as unfortunate...."

However, Clio, the Muse of History, is never stationary. Writing now, from the perspective of an additional three decades, it seems that it may be the building of an automobile infrastructure and culture that may be unfortunate and that electric interurbans in the updated livery and with the updated technology of the Twenty-First Century may yet return to the fore, carrying commuters from the outlying suburbs into the urban core in just the same way as did their ancestors more than two generations ago.

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